1. An apparatus for photonic channel multiplexing using code-division minimum shift keying techniques, the apparatus comprising:

a carrier medium configured to carry first and second base band data channels configured to carry respective first and second baseband signals at a base data rate;

first and second derivation mechanisms configured to convert the first and second baseband signals into first and second series of impulses, respectively;

a first commutator configured to receive the first series and divide it into a first odd channel and a first even channel, each having half the base data rate;

a second commutator configured to receive the second series divide it into a second odd channel and a second even channel, each having half the base data rate;

first and second filters configured to encode the first odd channel and the first even channel, respectively, with a first orthogonal code; and

third and fourth filters configured to encode the impulses of the second odd channel and the second even channel, respectively, with a second orthogonal code.

2. The apparatus of claim 1, further comprising:

a first combiner configured to combine the first and second even channels into a first consolidated signal; and

a second combiner configured to combine the first and second odd channels into a second consolidated signal.

3. The apparatus of claim 2, further comprising:

a laser for providing a coherent photonic source signal;

a first amplitude modulator configured to modulate the laser with the first consolidated signal, thereby providing an in-phase signal; and

a second amplitude modulator configured to modulate the laser, phase-shifted by 90°,with the second consolidated signal, to provide a quadrature signal.

4. The apparatus of claim 3, further comprising a third combiner configured to combine the in-phase and quadrature signals into a multiplexed output.

5. The apparatus of claim 4, further comprising an output line configured to receive the multiplexed output.

6. The apparatus of claim 4, further comprising a splitter configured to split the multiplexed output into first and second daughter signals.

7. The apparatus of claim 6, further comprising:

a first decoder configured to receive the first daughter signal and extract the first even signal therefrom;

a second decoder configured to receive the first daughter signal and extract the first odd signal therefrom;

a third decoder configured to receive the second daughter signal and extract the second even signal therefrom; and

a fourth decoder configured to receive the second daughter signal and extract the second odd signal therefrom.

8. The apparatus of claim 7, further comprising:

a fourth combiner configured to combine the first even signal and the first odd signal to reproduce the first baseband signal; and

a fifth combiner configured to combine the second even signal and the second odd signal to reproduce the second baseband signal.

9. The apparatus of claim 1, wherein the first and second orthogonal codes are Walsh codes.

10. The apparatus of claim 9, wherein the Walsh codes are minimum shift keying waveforms.

11. A method for photonic channel multiplexing using code-division minimum shift keying techniques, the method comprising:

providing first and second baseband signals having a baseband data rate;

deriving from the first and second baseband signals a first and second series of impulses, respectively;

commutating the first series of impulses into a first odd channel and a first even channel, each having half the baseband data rate;

commutating the second series of impulses into a second odd channel and a second even channel, each having half the baseband data rate; and

encoding the first odd channel and the first even channel with a first orthogonal code; and

encoding the second odd channel and the second even channel with a second orthogonal code.

12. The method of claim 11, further comprising:

combining the first and second even channels into a first consolidated signal; and

combining the first and second odd channels into a second consolidated signal.

13. The method of claim 12, further comprising:

providing a source of coherent photonic signals;

modulating the source with the first consolidated signal, to provide an in-phase signal; and

modulating the source, phase-shifted by 90°, with the second consolidated signal, to provide a quadrature signal.

14. The method of claim 13, further comprising combining the in-phase and quadrature signals into a multiplexed output.

15. The method of claim 14, further comprising transmitting the multiplexed output through an optical fiber.

16. The method of claim 14, further comprising splitting the multiplexed output into first and second daughter signals.

17. The method of claim 16, further comprising:

extracting the first even signal from the first daughter signal;

extracting the first odd signal from the first daughter signal;

extracting the second even signal from the second daughter signal; and

extracting the second odd signal from the second daughter signal.

18. The method of claim 17, further comprising:

combining the first even signal and the first odd signal to reproduce the first baseband signal; and

combining the second even signal and the second odd signal to reproduce the second baseband signal.

19. The method of claim 11, wherein the first and second orthogonal codes are Walsh codes;

20. The method of claim 19, wherein the Walsh codes are minimum shift keying waveforms;